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UTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	
First Inventor	John E. Schommer
Title	WATER Conserving and Cleaning Apparatus
Express Mail Label No.	

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1.  Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2.  Applicant claims small entity status. *NA*  
See 37 CFR 1.27.
3.  Specification [Total Pages **36**]
  - Descriptive title of the invention ✓
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention ✓
  - Brief Summary of the Invention ✓
  - Brief Description of the Drawings (if filed) ✓
  - Detailed Description ✓
  - Claim(s) ✓
  - Abstract of the Disclosure ✓
4.  Drawing(s) (35 U.S.C. 113) [ Total Sheets **5** ]
5. Oath or Declaration [ Total Pages **41** ]
  - a.  Newly executed (original or copy)
  - b.  Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
    - i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6.  Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7.  CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a.  Computer Readable Form (CRF)
  - b. Specification Sequence Listing on.
    - i.  CD-ROM or CD-R (2 copies); or
    - ii.  paper
  - c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9.  Assignment Papers (cover sheet & document(s))
10.  37 CFR 3.73(b) Statement  
(when there is an assignee)  Power of Attorney
11.  English Translation Document (if applicable)
12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations
13.  Preliminary Amendment
14.  Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15.  Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16.  Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17.  Other: \_\_\_\_\_

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation    Divisional    Continuation-in-part (CIP)   of prior application No. \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

Group Art Unit: \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

<input type="checkbox"/> Customer Number or Bar Code Label	(Insert Customer No. or Attach bar code label here)			<input checked="" type="checkbox"/> Correspondence address below
Name	George T. Parsons			
Address	2736 Aegean Drive			
City	San Diego	State	CA	Zip Code
Country	USA	Telephone	619-267-4760	Fax

Name (Print/Type)	George T. Parsons	Registration No. (Attorney/Agent)	39,690
Signature	George T. Parsons	Date	July 6, 2001

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# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT **(\$ 391.00)**

## Complete if Known

Application Number			
Filing Date	July 6, 2001		
First Named Inventor	John E. Schammer		
Examiner Name			
Group Art Unit			
Attorney Docket No.			

## METHOD OF PAYMENT

1.  The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number

Deposit Account Name

Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

Applicant claims small entity status See 37 CFR 1.27

2.  Payment Enclosed:

Check  Credit card  Money Order  Other

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee (\$)	Fee Description	Fee Paid
105	130	205	65 Surcharge - late filing fee or oath	<input type="text"/>
127	50	227	25 Surcharge - late provisional filing fee or cover sheet	<input type="text"/>
139	130	139	130 Non-English specification	<input type="text"/>
147	2,520	147	2,520 For filing a request for ex parte reexamination	<input type="text"/>
112	920*	112	920* Requesting publication of SIR prior to Examiner action	<input type="text"/>
113	1,840*	113	1,840* Requesting publication of SIR after Examiner action	<input type="text"/>
115	110	215	55 Extension for reply within first month	<input type="text"/>
116	390	216	195 Extension for reply within second month	<input type="text"/>
117	890	217	445 Extension for reply within third month	<input type="text"/>
118	1,390	218	695 Extension for reply within fourth month	<input type="text"/>
128	1,890	228	945 Extension for reply within fifth month	<input type="text"/>
119	310	219	155 Notice of Appeal	<input type="text"/>
120	310	220	155 Filing a brief in support of an appeal	<input type="text"/>
121	270	221	135 Request for oral hearing	<input type="text"/>
138	1,510	138	1,510 Petition to institute a public use proceeding	<input type="text"/>
140	110	240	55 Petition to revive - unavoidable	<input type="text"/>
141	1,240	241	620 Petition to revive - unintentional	<input type="text"/>
142	1,240	242	620 Utility issue fee (or reissue)	<input type="text"/>
143	440	243	220 Design issue fee	<input type="text"/>
144	600	244	300 Plant issue fee	<input type="text"/>
122	130	122	130 Petitions to the Commissioner	<input type="text"/>
123	50	123	50 Processing fee under 37 CFR 1.17(q)	<input type="text"/>
126	180	126	180 Submission of Information Disclosure Stmt	<input type="text"/>
581	40	581	40 Recording each patent assignment per property (times number of properties)	<input type="text"/>
146	710	246	355 Filing a submission after final rejection (37 CFR § 1.129(a))	<input type="text"/>
149	710	249	355 For each additional invention to be examined (37 CFR § 1.129(b))	<input type="text"/>
179	710	279	355 Request for Continued Examination (RCE)	<input type="text"/>
169	900	169	900 Request for expedited examination of a design application	<input type="text"/>
Other fee (specify) _____				<input type="text"/>
*Reduced by Basic Filing Fee Paid				<b>SUBTOTAL (3) (\$)</b> <input type="text"/>

\*\*or number previously paid, if greater; For Reissues, see above

Complete if applicable

Name (Print/Type)	GEORGE T. PARSONS	Registration No. (Attorney/Agent)	34,690	Telephone	619-267-4760
Signature	George T. Parsons	Date	July 6, 2001		

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**Assistant Commissioner for Patents  
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on July 6, 2001.

Date

  
\_\_\_\_\_  
Signature

GEORGE T. PARSONS  
Typed or printed name of person of signing Certificate  
(619) 267-4760

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

1. Fee transmittal form	6. Power of attorney
2. Checks	7. IDS
3. Specification (36 PAGES)	8. two IDS citations (patents) 12 pp
4. Drawings (5 SHEETS)	9. Return Receipt Post Card
5. Declaration	10. CERTIFICATE OF MAILING + UTILITY PATENT APPLICATION TRANSMISSION + FEE DETERMINATION RECORD

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## PATENT APPLICATION FEE DETERMINATION RECORD

Application or Docket Number

## CLAIMS AS FILED - PART I

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a))		
TOTAL CLAIMS (37 CFR 1.16(c))	24 minus 20 = * 4	
INDEPENDENT CLAIMS (37 CFR 1.16(b))	3 minus 3 = * 0	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(d))		0

\* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY OR OTHER THAN  
SMALL ENTITY

RATE	FEES	RATE	FEES
	\$ 355		
OR x \$ 9 =	86		\$ _____
OR x \$ _____ =			
OR x _____ =			
OR + _____ =			
TOTAL	391	OR TOTAL	

## CLAIMS AS AMENDED - PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(c))	*	Minus	** =
	Independent (37 CFR 1.16(b))	*	Minus	*** =
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))				

SMALL ENTITY OR OTHER THAN  
SMALL ENTITY

RATE	ADDI- TIONAL FEE	RATE	ADDI- TIONAL FEE
x \$ _____ =			
x _____ =			
+ _____ =			
TOTAL	ADDITIONAL FEE	OR TOTAL	ADDITIONAL FEE

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(c))	*	Minus	** =
	Independent (37 CFR 1.16(b))	*	Minus	*** =
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))				

(Column 1) (Column 2) (Column 3)

RATE	ADDI- TIONAL FEE	RATE	ADDI- TIONAL FEE
x \$ _____ =			
x _____ =			
+ _____ =			
TOTAL	ADDITIONAL FEE	OR TOTAL	ADDITIONAL FEE

AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(c))	*	Minus	** =
	Independent (37 CFR 1.16(b))	*	Minus	*** =
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))				

(Column 1) (Column 2) (Column 3)

RATE	ADDI- TIONAL FEE	RATE	ADDI- TIONAL FEE
x \$ _____ =			
x _____ =			
+ _____ =			
TOTAL	ADDITIONAL FEE	OR TOTAL	ADDITIONAL FEE

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

\*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

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# WATER CONSERVING AND CLEANING APPARATUS

## Background of the Invention

### 5 Field of the Invention

The present invention relates generally to watering devices. More particularly, the present invention relates to manually operated watering devices used to clean surfaces by using water and air at a predesignated pressure and direction.

### Description of the Related Art

Manually operated cleaning devices using water are well-known.

15 Devices using many different styles, materials, and performing varying functions have been patented. More specifically, numerous cleaning devices known as water brooms have been invented. The purpose of these devices is generally to clean surfaces, such as tennis courts, driveways, pool decks and commercial sidewalks, patios or parking lots.

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Unfortunately, patented inventions in this field still exhibit many problems and disadvantages which the present invention has overcome.

Even though previous designs have had some success in overcoming past problems, one long standing problem of prior art devices is an inability to conserve water. Still another problem is that prior art designs include relatively non-durable devices. Yet another problem in the prior art is the 5 lack of flexibility in the design.

Some of the related prior art includes the following U.S. Patents:

Anderberg, et. al., Pat. No. 4,095,746 and Merlin, Pat. No. 4,930,706.

Anderberg discloses a surface cleaning apparatus which "...provides a plurality of overlapping spray patterns..." and also is directed to "...one of said plurality of spray nozzles being mounted at said junction...to deflect liquid flow..." One problem with Anderberg's disclosure is that the nozzles are not protected from damage. Therefore, the nozzles are not durable. A second problem is that no teaching is made to linking highly 10 effective cleaning of surface with dramatic water conservation. The only reference seems to be describing a spray pattern with "...minimizing the volume of water impinging on the surface for cleaning." No novel details are disclosed. Another problem is the lack of a flexible design, preventing 15 accommodating the needs of different users. In fact, Anderberg teaches away from the present invention's novel features. 20

Merlin discloses "...a fluid spray apparatus with resilient shank

portion which is compressedly seated in its aperture and a resilient flange portion ...in pressure sealing engagement." Primarily Merlin is directed towards a technique permitting removal of nozzles for cleaning yet providing for nozzle alignment and sealing once reinstalled. One 5 problem with Merlin's disclosure is that the nozzles are not protected from damage. A second problem is that no teaching is made which links cleaning of a surface with water conservation. Another problem is the lack of a flexible design, preventing accommodating the needs of different users. In fact, Merlin teaches away from the present invention.

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In summary, the cited patents have a multitude of problems and disadvantages. As is quickly realized, the cited patents disclose attempts to solve only one or two problems associated with previous cleaning devices using water. All of them rely solely on a high volume of water at a high water pressure for cleaning. None use air to assist in cleaning, nor do any use air to conserve water. One attempts to improve the spray pattern. Another attempts to provide a nozzle which is easier to clean. However, problems still exist in the prior art which have not been addressed to the knowledge of the Applicant. These problems are solved with an elegant, simple, and inexpensive design. In addition, the present invention solves other problems in the field that have been virtually ignored.

Therefore, it is an object of the present invention to provide a durable device which will last a long time after many uses. Another object is to provide a device which provides dramatic water conservation features, while still thoroughly cleaning a surface. Still another object is to provide an elegantly simple and inexpensively manufactured design, including a flexible design accommodating the needs of different users and supporting a variety of devices. The Applicant thinks the present invention overcomes many long-standing and even ignored problems and disadvantages of the prior art.

#### Summary of the Invention

The above-mentioned difficulties and problems of the prior art are overcome by the present invention. The present water conserving and cleaning apparatus' major components include an essentially straight handle of several feet in length, with a hand grip in the vicinity of a distal end, a straight, preferably brass, fixture, and a water flow control lever operably secured to the fixture. The handle is secured on the proximate end to a horizontal member in an inverted "T" configuration. One novel feature is the angle at which the handle is secured to the horizontal member. The specific angle has been determined through testing to be the

preferred for maximum comfort value to the widest group of adults of virtually any age and height. The horizontal member includes a winged jet manifold fixably secured to the proximate end of the handle.

5        The many novel features of the manifold include a flow director which forces an air and water jet stream onto a surface to be cleaned. Another novel feature is a rear wing. The rear wing, integral to the jet manifold, includes a two level cantilevered porch with specifically designed angles and heights to provide optimum air flow and a Venturi effect under the water conserving apparatus. Thus, a minimum of water is required when combined with an air stream to provide maximum pressure at a specific target angle to the surface to be cleaned. Therefore, complete and rapid cleaning is achieved with an order of magnitude savings in water conservation when compared to the prior art. In addition, 15      a cylindrical horizontal length of pipe is integrally manufactured into the manifold. Also, a plurality of spray nozzles are secured along the horizontal length of the pipe at generally equally spaced intervals. Finally, on a rear side of the manifold is movably secured a plurality of wheels.

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Several embodiments of the present invention demonstrate the design flexibility and adaptability to a variety of surface cleaning uses.

These uses include firehouses, hotels, schools, and boats of all sizes and uses.

These, and other, novel features and advantages of the present invention are set forth more completely in the accompanying drawings and the following description.

#### Brief Description of the Drawings

Details of the invention, and of the preferred embodiment thereof, will be further understood upon reference to the drawings, wherein closely related elements have the same number but different alphabetical suffixes, and further wherein:

Figure 1a is a perspective view of a prior art device;

15 Figure 1b is a right elevation view in partial section of the prior art device in Figure 1a, illustrating a portion of a handle, a typical nozzle, and a typical spray pattern;

Figure 2 is a perspective view of one embodiment of the present invention;

20 Figure 3 is a right elevation view in partial section of the present invention in Figure 2, illustrating a jet manifold protecting a nozzle and directing air and water flow;

Figure 4 is an enlarged detailed partial section of a right elevation view of the present invention of Figure 2;

Figure 5 is an enlarged plan view of the jet manifold of Figure 3;

5 Figure 6a is an enlarged detailed section view of a cone-shaped water filter inside the handle of the present invention; and

Figure 6b is an enlarged perspective view of the filter.

Detailed Description of the Preferred Embodiments

The above-mentioned difficulties and problems of the prior art are overcome by the present invention. Referring initially to Figure 1a, a perspective view of an invention of the prior art is shown. A typical waterbroom 1 is seen including a horizontal pipe member 2.

15 Referring next to Figure 1b, a right elevation view in partial section of the prior art device of Figure 1a is shown, illustrating a portion of a handle 3 into which a typical nozzle 4 is secured. In addition, a typical spray pattern 5 from the nozzle 4 is shown.

20 Referring now to Figure 2, a perspective view of one embodiment of the present invention is shown. A water conserving and cleaning apparatus 10 comprises numerous major components, including